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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/706,088	11/03/2000	Thad G. Walker	032026:0486	5028
23524	7590	10/27/2003	EXAMINER	
FOLEY & LARDNER 150 EAST GILMAN STREET P.O. BOX 1497 MADISON, WI 53701-1497			LANDAU, MATTHEW C	
			ART UNIT	PAPER NUMBER
			2815	

DATE MAILED: 10/27/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/706,088

Applicant(s)

WALKER ET AL.

Examiner

Matthew Landau

Art Unit

2815

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 18 July 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1,4,6-13,16-20,23 and 25-38 is/are pending in the application.
- 4a) Of the above claim(s) 12,20,23 and 25-38 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1,4,6-9,13 and 16-19 is/are allowed.
- 6) ☒ Claim(s) 10 and 11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 November 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## **DETAILED ACTION**

### ***Election/Restrictions***

As per Applicant's request, the following Supplemental Restriction Requirement is provided to clarify any outstanding issues regarding the previous election of species restriction requirement.

This application contains claims directed to the following patentably distinct species of the claimed invention:

- a. Species I, as shown in Figures 2, 4, 5, and 7.
- b. Species II, as shown in Figures 4, 5, and 8.
- c. Species III, as shown in Figures 4, 5, and 9.

Species I is distinct from Species II and III because it contains a cylindrical lens 45 not found in Species II, while Species II contains a mirror 60 not found in Species I. Species I is distinct from Species III because it a cylindrical lens 45 and laser output from the grating, while Species III contains no cylindrical lens and a beamsplitter 63 with laser output from said beamsplitter. Species II is distinct from Species III because it contains a mirror 60 and laser output from the grating 18, while Species III contains no mirror and a beamsplitter with laser output from said beamsplitter.

Applicant elected Species I in Paper No. 9 and has since received an action on the merits based on that election. Therefore, claims drawn to Species I as indicated above will be examined. Applicant previously indicated claims 1, 7, 10, 11, 13, and 17-19 read on the elected species. In light of Applicant's amendments/comments (filed July 18, 2003) and the revised

restriction requirement, the Examiner has determined the following claims read on the elected species: claims 1, 4, 6-11, 13, and 16-19. Therefore, claims 12, 20, 23, and 25-38 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected species, there being no allowable generic or linking claim.

The requirement is still deemed proper and is therefore made FINAL.

### ***Claim Objections***

Claim 11 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stephens in view of Koester et al. (US Pat. 3,670,260, hereinafter Koester).

In regards to claims 10 and 11, Figure 10 of Stephens discloses a high power diode laser system having narrow spectral width output comprising: a high power diode laser 38 that produces multimode laser light output at a power levels of at least one watt and having a relatively broad spectral range (column 5, lines 1-7); a collimating element  $L_1$  positioned to receive the output of the laser diode and provide a collimated output beam; and a diffraction grating 50' mounted to receive the collimated beam from the collimating element on a beam path, the diffraction grating 50' oriented at an angle to the incident beam such that a portion of the light in the beam incident on the grating is directed back on the beam path to the collimating element and is focused on the diode laser to provide feedback thereto to narrow the spectral range of the laser light output, wherein the diode laser 38 provides two spatially diverging output beams on two beam paths from two active regions (column 9, lines 10-27), and including a cylindrical lens  $L_2$  positioned in the beam path between the collimating element and the diffraction grating, the cylindrical lens  $L_2$  formed and positioned to image the output of the diode onto the grating, the first order diffraction feedback from the grating directed by the cylindrical lens  $L_2$  and collimating element back to the diode laser to form an image of the diode output such that each of the two diode active regions is imaged back onto itself (column 9, lines 10-27). Figure 6 of Stephens discloses a portion of the beam incident on the diffraction grating is directed by the grating to provide a useable output light beam 52 from the laser system (column 7, lines 60-62). The difference between Stephens and the claimed invention is output beam shaping optics comprising lenses and a diffuser. Figure 1 of Koester discloses output beam shaping optics comprising lenses 20/16 and a diffuser 24. In view of such teaching, it would have been obvious to the ordinary artisan at the time the invention was made to modify the

invention of Stephens by using the beam shaping optics of Koester for the purpose of generating a desired intensity profile (column 2, lines 31-33).

*Allowable Subject Matter*

Claims 1, 4, 6-9, 13, and 16-19 allowed.

*Response to Arguments*

Applicant's arguments with respect to claim 10 have been considered but are moot in view of the new ground(s) of rejection.

*Conclusion*

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew C. Landau whose telephone number is (703) 305-4396.


The examiner can normally be reached from 8:30 AM - 5:30 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Thomas can be reached on (703) 308-2772. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and (703) 872-9306 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Matthew C. Landau

Examiner

October 19, 2003

  
**GEORGE ECKERT**  
**PRIMARY EXAMINER**